INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

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June 12, 2003

TO: Interested Parties / Applicant
RE: Kimball Industrial Complex #037-17176-00100
flexcel - Jasper 15th Street
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

FNPERAM.wpd 8/21/02

June 12, 2003

Mr. Mike Fulkerson
Kimball Industrial Complex
flexcel - Jasper 15th Street
1155 W. 12th Ave.
Jasper, IN 47549

Dear Mr. Fulkerson:

Re: Exempt Construction and Operation Status,
037-17176-00100

The application from flexcel - Jasper, received on April 21, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the unit following unit, to be located at 1037 East 15th Street, Jasper, Indiana, is classified as exempt from air pollution permit requirements:

One (1) Pyrolysis Oven, identified as BO.3, rated at 0.4 MMBtu/hr, using an afterburner as control, and exhausting to stack BO.3.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 4-2-2 (Burning Regulations)

Pursuant to 326 IAC 4-2-2, the pyrolysis cleaning furnace shall:

(a) Consist of primary and secondary chambers or the equivalent.

(b) Be equipped with a primary burner unless burning wood products.

(c) Comply with 326 IAC 5-1 and 326 IAC 2.

(d) Be maintained properly as specified by the manufacturer and approved by the commissioner.

(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner.

(f) Comply with other state and/or local rules or ordinances regarding installation and

operation of incinerators.

(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented.

(h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.

(i) Not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

According to the specifications supplied by the manufacturer of the pyrolysis furnace, the emissions from the furnace when the afterburner is in operation will not exceed 0.128 lb PM per 1,000 lb dry exhaust gas corrected to 50% excess air. Therefore, the pyrolysis furnace is in compliance with 326 IAC 4-2-2.

This existing source has submitted their Part 70 application (T-037-7356-00100) on December 4, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

GAS

cc: File - Dubois County
Dubois County Health Department
Air Compliance - Gene Kelso
Southern Regional Office
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak
Part 70 Application File - T-037-7356-00100

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Kimball Industrial Complex flexcel - Jasper 15th Street
Source Location:	1037 East 15th Street, Jasper, IN 47549
County:	Dubois
SIC Code:	2541
Operation Permit No.:	037-17176-00100
Permit Reviewer:	Ghassan Shalabi

The Office of Air Quality (OAQ) has reviewed an application from flexcel, a division of Kimball International relating to the replacement of the existing 0.3 MMBtu/hr pyrolysis oven with 0.4 MMBtu/hr pyrolysis oven.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission unit and pollution control device:

One (1) Pyrolysis Oven, identified as BO.3, rated at 0.4 MMBtu/hr, using an afterburner as control, and exhausting to stack BO.3.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Minor Source Modification 037-16253-00100, issued on September 6, 2002;

(b) Exemption 037-16046-00100, issued on March 15, 2003; and

(c) Exemption 037-17103-00100, issued March 20, 2003

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
BO.3	Pyrolysis Oven	21	1	720	1200

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on April 21, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (1 page).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.2
PM-10	0.2
SO_2	0.1
VOC	0.1
CO	0.2
NO_x	0.1

County Attainment Status

The source is located in Dubois County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Dubois County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	3
PM10	3
SO_2	1
VOC	414
CO	89
NO_x	12

(a) This existing source is a major stationary source because VOC is emitted at a rate greater than 250 tons per year.

(b) These emissions were based on the 2001 OAQ emission data.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	0.2	0.2	0.1	0.1	0.2	0.1
Contemporaneous Increases	0	0	0	0	0	0
Contemporaneous Decreases	0	0	0	0	0	0
Net Emissions	0.2	0.2	0.1	0.1	0.2	0.1
PSD Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 T-037-7356-00100 application on December 4, 1996. The Part 70 permit has not yet been issued. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 4-2-2 (Burning Regulations)

Pursuant to 326 IAC 4-2-2, the pyrolysis cleaning furnace shall:

(a) Consist of primary and secondary chambers or the equivalent.

(b) Be equipped with a primary burner unless burning wood products.

(c) Comply with 326 IAC 5-1 and 326 IAC 2.

(d) Be maintained properly as specified by the manufacturer and approved by the commissioner.

(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner.

(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators.

(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented.

(h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.

(i) Not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

According to the specifications supplied by the manufacturer of the pyrolysis furnace, the emissions from the furnace when the afterburner is in operation will not exceed 0.128 lb PM per 1,000 lb dry exhaust gas corrected to 50% excess air. Therefore, the pyrolysis furnace is in compliance with 326 IAC 4-2-2.

Conclusion

The construction and operation of the new pyrolysis furnace shall be subject to the conditions of the attached Exemption 037-17176-00100**.**

Appendix A: Emission Calculations
Pyrolysis Furnace

Company Name: Kimball Industrial Complex flexcel - Jasper 15th Street
Address City IN Zip: East 15th Street, Jasper, Indiana 47549
Permit: 037-17176-00100
Reviewer: Ghassan Shalabi

THROUGHP	THROUGHPUT
lbs/hr	ton/yr
10.00	43.8

	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	0.2	0.1	0.2	0.1	0.1

Methodology
Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers
Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)

I. Facility Description
One (1) pyrolysis cleaning furnace identified as BO3, rated at a maximum of 0.4 MMBtu per hour heat input and 25 pounds of coating, with exhausts to stack BO3.

This oven is equipped with an afterburner rated at greater than 95% efficiency.

II. Allowable Emissions per Applicable Requirements

326 IAC 4-2 (Incinerator Rule)

This rule requires incinerators with a maximum refuse-burning capacity less than 200 lbs/hr to not emit PM in excess of 0.5 pounds per 1,000 pounds of dry exhaust gas at standard conditions corrected to 50% excess air.

Given:
PM potential emissions = 0.2 lb/hr
Stack gas flow rate = 565.50 acfm
Gas temperature = 1200 deg F
% excess air = 0 %

Calculations:

V, std = 565.5 acfm * (529) deg R
(1659) deg R
V, std = 180 dscfm

Cs = 0.2 lb/hr * 7000 gr/lb / 180 dscf * 1 hr/60 min = 0.099 gr/dscf

Correct for 50% excess air:

Cs, corr = 0.099 gr/dscf * (100 + 0) / 150 %) %
Cs, corr = 0.066 gr/dscf

Ideal Gas Law:

V stp = R*T / P * Mw where
R (gas constant) = 21.9 in Hg * ft^3 / lbmol * deg R
T (std. temperature) = 529 deg R
P (std. pressure) = 29.45 inches of Hg
Mw (avg. molec. wt. air) = 29 lb/lbmol

V stp = 13.6 ft^3/lb air

Cs, corr, stp = 0.066 gr/dscf * 13.6 ft^3/lb air = 0.897 gr/lb air

0.897 gr/lb air * 1lb/7000 gr * 1000 = 0.128 lb PM / 1000 lb dry gas (will comply)

allowable = 0.50 **lb PM / 1000 lb dry gas**